

# Operating Instructions



**Professional  
Overhead  
Projector**

**MODELS**

28A640,  
28A641A,  
28A653A,  
28A663,  
28A4000,  
28A4003,  
28A4500,  
28A5500

Audio Visual Products

**DUKANE**

# **IMPORTANT SAFETY INSTRUCTIONS**

When using your overhead projector, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions before using.
2. Close supervision is necessary when any projector is used by or near children. Do not leave projector unattended while in use.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate projector with a damaged cord or if the projector has been dropped or damaged – until it has been examined by a qualified serviceman.
5. Position the cord so that it will not be tripped over, be pulled or contact hot surfaces.
6. If an extension cord is necessary, a cord with a current rating at least equal to that of the projector should be used. Cords rated for less amperage than the projector may overheat.
7. Always unplug projector from electrical outlet before cleaning and servicing and when not in use. Never yank cord to pull plug from outlet. Grasp plug and pull to disconnect.
8. Let projector cool completely before putting away.
9. To protect against the risk of electric shock, do not immerse this projector in water or other liquids.
10. To avoid the risk of electric shock, do not disassemble this projector, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock when the projector is used subsequently.
11. The use of accessory attachment not recommended by the manufacturer may cause a risk of fire, electric shock or injury to persons.
12. Connect this projector to a grounded outlet.
13. Disconnect this unit from its source of supply before replacing the projection lamp.

Additional lamp safeguards: never handle lamps with bare fingers; periodically inspect lamps, when they're turned off, for signs of blistering or blackening; insure proper action of the cooling system; turn off the projector immediately if the image becomes abnormally dim; never operate a projector with the lamp housing open; and make sure that the lamp itself is properly seated.

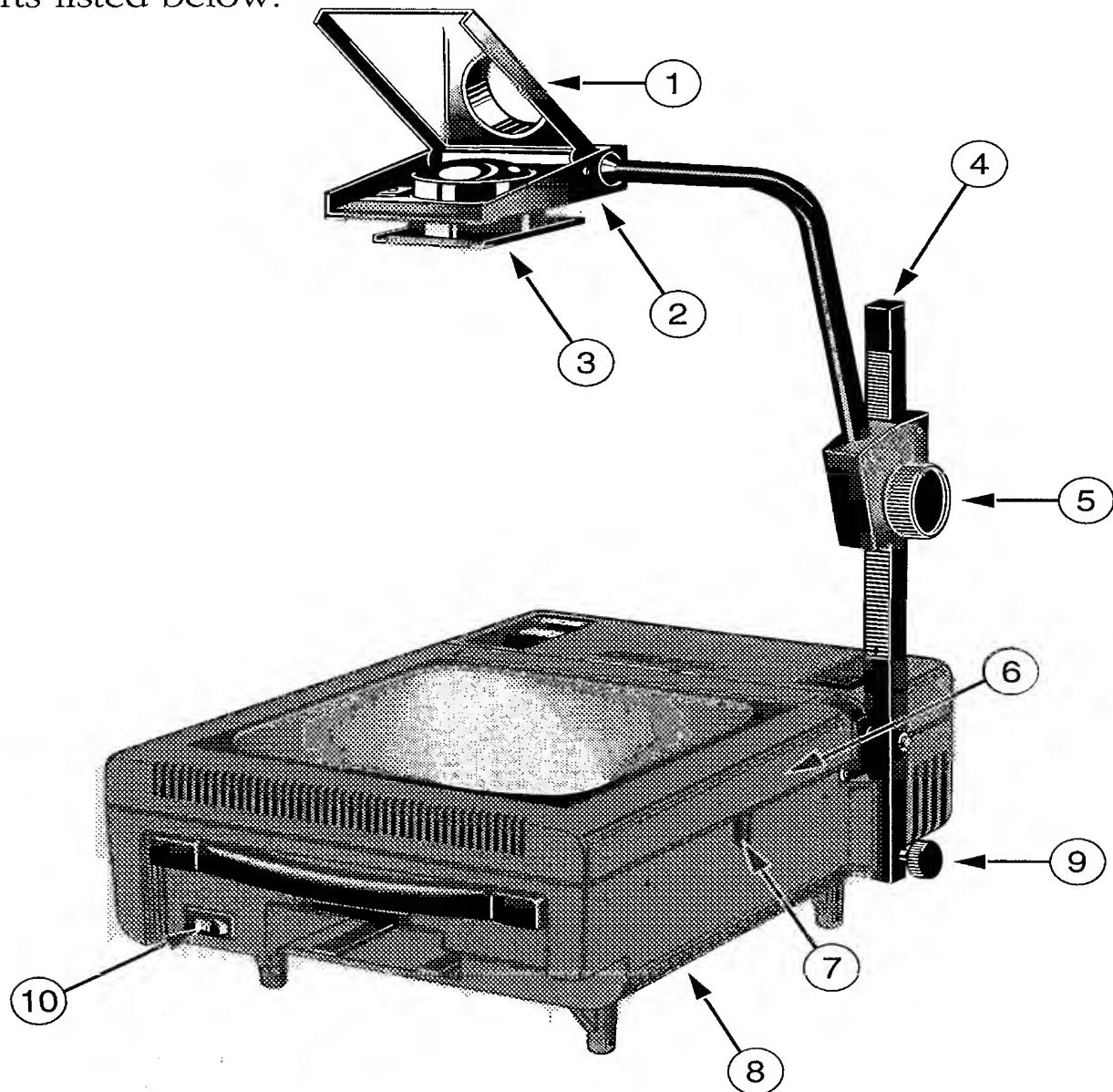
## **SAVE THESE INSTRUCTIONS**

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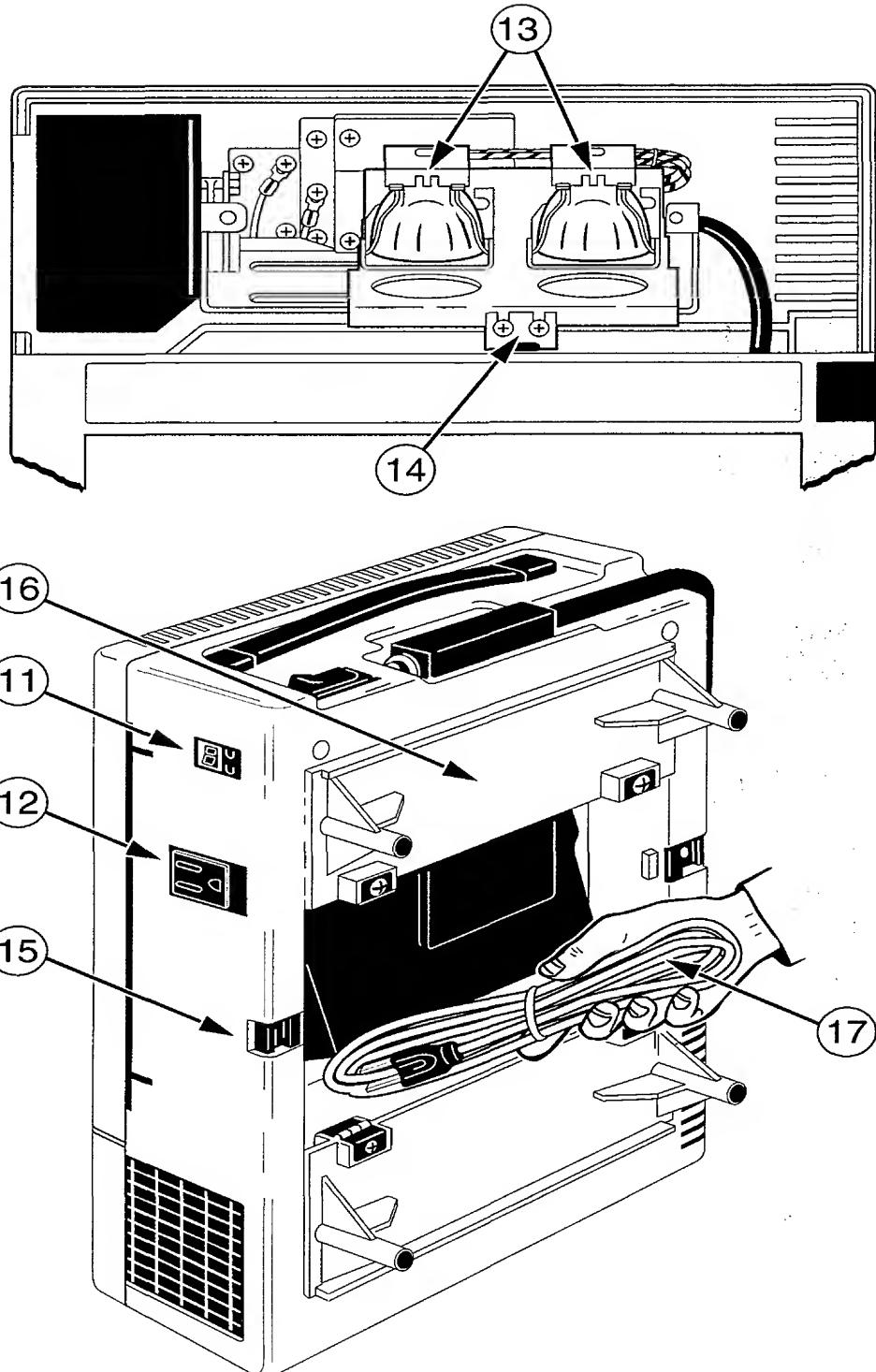
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# 1 – PRODUCT FEATURES

A number of terms are used frequently in this instruction booklet. The OVERHEAD PROJECTOR will be easier to operate if you become familiar with the terms and their respective features for the functional parts listed below:



1. **Mirror;** used to direct projected image
2. **Lens Head**
3. **Wide Angle Projection Lens;** when in place, picture is 20% larger (663, 4003, 4500 and 5500 only)
4. **Mast;** rack & pinion focusing mechanism
5. **Focus Knob;** turn to focus projected image
6. **Stage;** place presentation media to be projected on stage
7. **Stage Latch;** release for lamp replacement and cleaning
8. **Base**
9. **Locking Knob;** release for fold-away design
10. **Power Switch**



**11. High/Low Switch;** high mode (4000 lumens), low mode (3200 lumens), (4000/4003/4500 only)

**12. 120 V AC Outlet;** for use with LCD panel connection (4000/4003 only—two outlets on 4500/5500)

**13. Lamp Ejection Lever;** release for bulb replacement

**14. Lamp Changer Lever;** slide for replacement lamp

**15. Door Latch (one each side);** for cord storage

**16. Door/Leg Assembly;** close for foldaway design

**17. Power Cord**

## 2 – SPECIFICATIONS

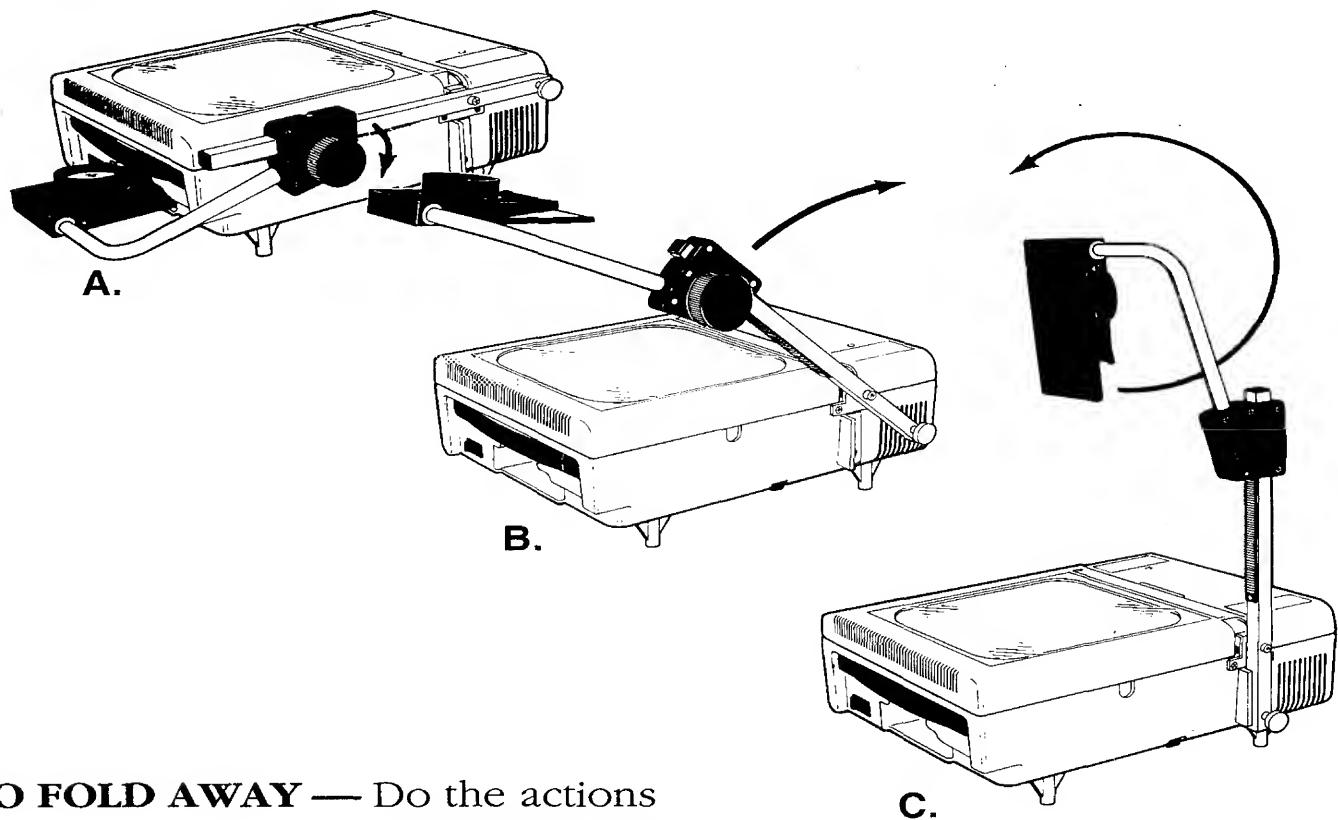
Dimensions .....	5" H x 13" W x 17.5" D (Folded) 32" H x 13" W x 17.5" D (Opened)
Aperture ..	640, 641A, 663, 4000, 4003—10" x 10" (254mm x 254mm) 4500, 5500—11.2" x 11.2" (285mm x 285mm)
Lens .....	641A—Single Element, 293mm (11.5") 640, 653A, 4000—Three Element, 327mm (13.0") 663, 4003, 4500, 5500—Four Element, 280mm (11.0")
Lamp .....	641A, 653A, 663—360W, ENX 640, 4000, 4003, 4500, 5500—410W, FXL
Elevation .....	Up to 30 Degrees
Focus.....	Rack and Pinion
Power.....	641A, 653A, 663—120V, 60Hz, 4.4A 640, 4000, 4003—120V, 60Hz, 7.0A 4500, 5500—120V, 60Hz, 9.8A
Power Cord .....	3-Wire Grounded, 10 Ft.
Safety Interlock .....	Cuts Off Power When Unit Is Open
Weight .....	17 Lbs.

## 3 – DUKANE MODELS 663, 4003, 4500 & 5500 Professional Overhead Projectors

The Models 663, 4003, 4500 and 5500 feature a special optical design which combines a standard three-element (13") projection lens with a movable fourth element that converts to a **wide angle (11")** lens. This design allows you to maintain image size for both transparency and the smaller LCD panel aperture size. Other features include a lamp changing mechanism and spare lamp indicator that will light up to remind you to replace the primary lamp.

## 4 - SETUP

1. Set unit on projection table in the vertical position (handle up).
2. Slide bottom door latches out and swing both doors around to magnet latches (see page 2). Doors are fixed open on 640.
3. Remove all of the power cord, then tip unit over to rest on its legs.
4. Turn focus knob clockwise until it stops at the end of the mast (Fig. A).
5. Rotate the mast up until it stops (Fig. B and C).
6. Push in the mast locking knob and tighten (Fig. C).
7. Rotate the lens assembly counterclockwise to the working position. Open the mirror and focus image (Fig. C).

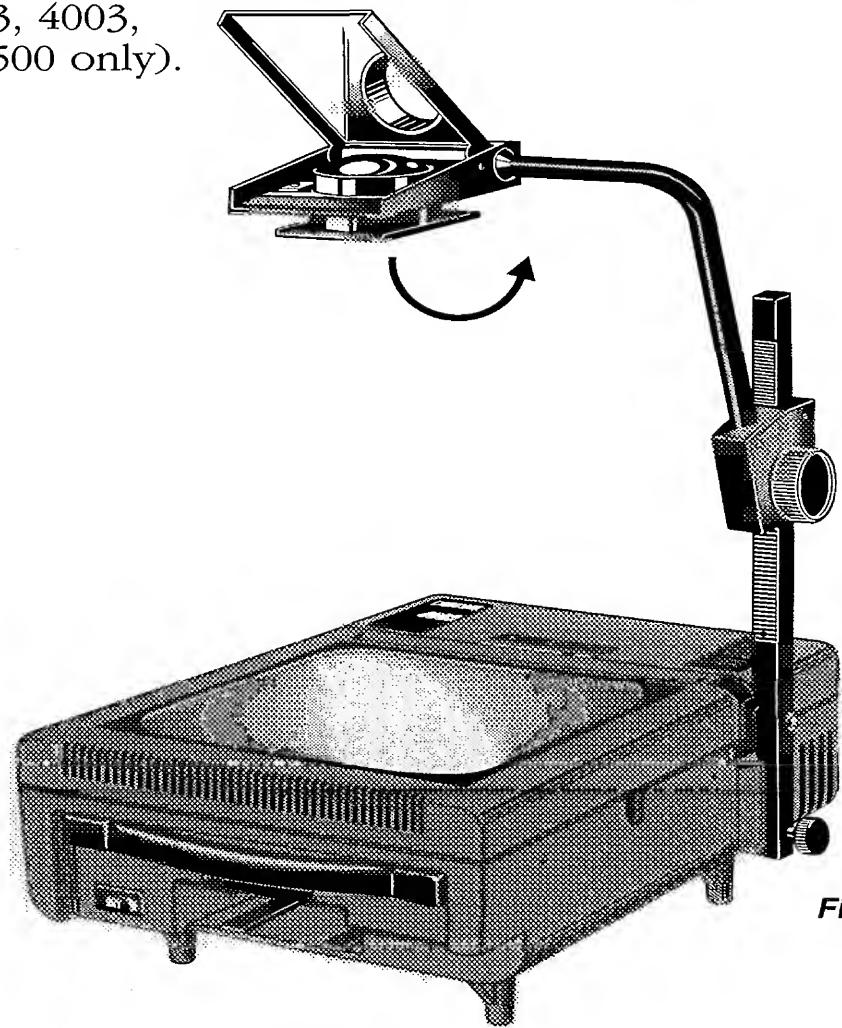


**TO FOLD AWAY —** Do the actions  
in reverse order.

## 5 – OPERATION

Place the projector on a stable surface that is desk or table height. Make sure that the side vent is not blocked. Plug the power cord into a standard 120V AC outlet. Push the power button in to turn the projector on. Place a transparency on the stage. If the fourth element lens is in place, an enlarged view of the transparency will be projected. For a standard size view of the image, carefully pull the fourth element lens towards the projector's mast and away from the lens head (see Fig. 1). Adjust the focus by turning the focusing knob. You may alternate between the wide angle and standard lens by moving the fourth element lens towards or away from the lens head (you may need to adjust the distance of the projector from the screen).

The Model 640/653A/663 and 4000/4003/4500/5500 lamp changing device allows you to quickly replace a failed lamp. Simply slide the lamp changing lever towards the side labeled "SPARE 2." The spare lamp indicator will light up to remind you to replace the primary lamp (Models 663, 4003, 4500 and 5500 only).



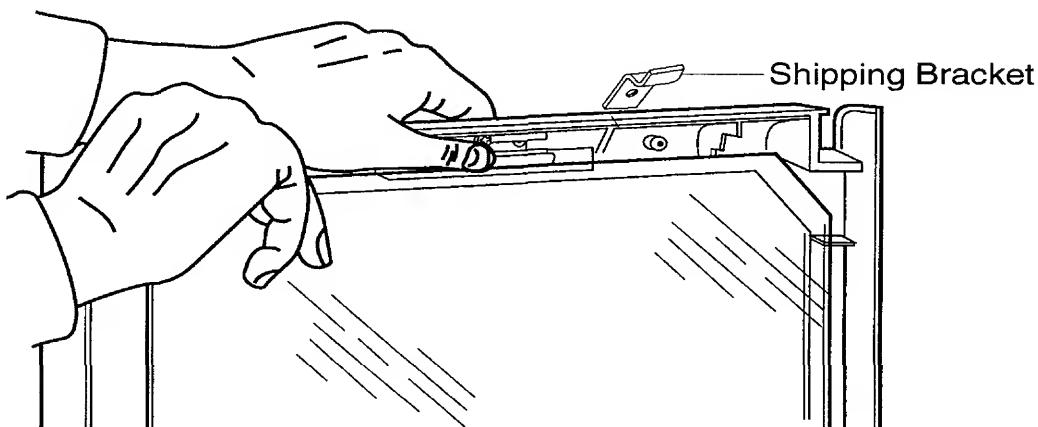
*Fig. 1—Model 663,  
4003, 4500  
and 5500*

## 6 – CARE IN USE

### 6.1 Maintenance

To clean Fresnel, cover glass and mirror.

1. Press stage catch.
2. Lift and swing stage over.
3. Remove Fresnel (4 screws).
4. Clean with dry, lint-free cloth.
5. Shipping brackets do not need to be replaced if the Fresnel is removed for cleaning. See below.



### 6.2 Lamp Replacement

**CAUTION:** Glass components may shatter. Cover glass parts with cloth. Protect eyes. Handle carefully.

Allow the lamp to cool before removing it.

Your projector uses:

641A, 653A, 663—360W, ENX.

640, 4000/4003/4500/5500—410W, FXL.

#### TO REMOVE:

1. Remove the defective lamp by pulling up and pushing back the lamp ejection lever.
2. Before inserting a new lamp, move the ejection lever back to its original position.

3. Avoid touching the new lamp — oily skin can cause discoloration of the lamp capsule or reflector.
4. Push lamp down into socket until firmly seated with the reflector lined up with the aperture.

### **6.3 Information On Lamp Warranty**

Projection lamps are warranted by the lamp manufacturer and not by the equipment manufacturer. If you have a lamp which you believe to be defective, contact the manufacturer of that particular lamp for the appropriate warranty replacement.

General Electric Company  
1501 South 19th Street  
Mattoon, IL 61938

## **7 – SERVICING**

### **7.1 Shipping Information**

If it becomes necessary to return a unit, please use the original packing material or pack securely to insure safe shipment.

### **7.2 Service**

Service and parts are available from Dukane or an approved service station. Contact Dukane Service Department at 1-800-676-2487 for the nearest service station. Service manuals are also available at nominal cost.

### **7.3 No Charge Warranty Repair**

Unit must be taken or sent to Dukane or approved service station with warranty card and sales receipt.

The manufacturer will not be liable for any expense incurred because of failure to present warranty card, pickup and delivery charges, service calls, or if service is supplied by other than the Dukane approved service stations.

## **8 – ELECTRICAL SAFETY GROUNDING INSTRUCTIONS**

This Class I product uses a three-wire power cord that grounds the product for your protection. Do not DEFEAT or REMOVE the grounding pin. If an extension cord is used, it must also be a three-wire type with an ampere rating equal or greater than the product's rating. The plug must be connected to a properly grounded three-terminal power receptacle. Connection to any other type of receptacle should be done only by a qualified electrician in accordance with local and/or national electrical codes.

## **THREE-YEAR LIMITED WARRANTY**

This Dukane audio visual product is warranted to the original purchaser for a period of three (3) years from the original purchase date -- in normal use and service -- against defects in material and workmanship. DUKANE CORPORATION EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

During the warranty period, Dukane Corporation will repair or replace (at the Manufacturer's option) any such defective parts (except for lamps, which are subject to whatever warranties the manufacturer may provide) without charge to the purchaser for parts or labor when the product is returned, prepaid and insured, with proof-of-purchase date. This remedy of repair or replacement is exclusive of all other remedies that the purchaser may have. This exclusive remedy is void if the product has been damaged by accident or unreasonable use, neglect, or improper service or other causes not arising out of defects in material or workmanship.

Dukane Corporation disclaims all liability for incidental or consequential damages of any kind, including all damages arising out of any interruptions in operation of the product and all damages to software.

No person, firm or representative is authorized to assume any obligation or make any warranty on behalf of the Dukane Corporation other than as stated above.

**THIS LIMITED WARRANTY IS VALID FOR U.S.A. AND CANADA.  
FOR OTHER LOCATIONS, LOCAL WARRANTIES APPLY.**

Audio Visual Products

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